

Claims

1. An image processing apparatus characterized by having:

operation means rotatable around a rotation axis and
5 having a rotation body which can be pressed in a
direction substantially in parallel with the rotation
axis;

rotation detection means for detecting rotation of
said rotation body;

10 press detection means for detecting a press of said
rotation body; and

display control means for controlling display of an
image, and characterized in that said display control
means rotates and displays said image in accordance with
15 the rotation of said rotation body detected by said
rotation detection means and switches and displays the
said image in accordance with a result of detection by
said press detection means.

20 2. The image processing apparatus according to Claim 1,
characterized in that:

said press detection means is capable of detecting
the press at a plurality of points of said rotation body,
and

25 said display control means is moves and displays
said image corresponding to a position where said press
detection means detects the press.

3. The image processing apparatus according to Claim 1,
30 characterized in that:

said press detection means can detect a press of

said rotation axis, and

said display control means performs predetermined processing on said image when said press detection means detects the press of said rotation axis.

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4. The image processing apparatus according to Claim 3, characterized by having a rotation mode for rotating said image and a resize mode for changing a size of said image.

10 5. The image processing apparatus according to Claim 4, characterized in that said display control means performs:

processing of rotating and displaying said image in accordance with the rotation of said rotation body

15 detected by said rotation detection means in a case where a mode of said image processing apparatus is the rotation mode, and

processing of scaling up/down said image in accordance with the rotation of said rotation body

20 detected by said rotation detection means in a case where the mode of said image processing apparatus is the resizing mode.

6. The image processing apparatus according to Claim 3, characterized by further having timer means for measuring a time period for which said rotation axis is pressed, and characterized in that said display control means switches said processing on the basis of the time period for which said rotation axis is pressed measured by said timer means when said press detection means detects the
30 press of said rotation axis.

7. The image processing apparatus according to Claim 3,
characterized by further having timer means for measuring
a time period for which said rotation axis is pressed,
5 and characterized in that, when said press detection
means detects the press of said rotation axis, said
display control means confirms said processing in a case
where the time period for which said rotation axis is
pressed measured by said timer means is shorter than a
10 predetermined time period, and performs processing of
switching a mode of said image processing apparatus from
said rotation mode to said resize mode in a case where
the time period for which said rotation axis is pressed
measured by said timer means is longer than said
15 predetermined time period.

8. The image processing apparatus according to Claim 1,
characterized in that said display control means controls
displaying of a planar image as said image and displays
20 said planar image after rotating in a counterclockwise
direction or a clockwise direction around a center of the
image in accordance with the rotation of said rotation
body detected by said rotation detection means.

25 9. The image processing apparatus according to Claim 1,
characterized in that said display control means controls
displaying of a three-dimensional image in a virtual
space as said image and displays said three-dimensional
image after rotating in a horizontal plane in said
30 virtual space setting a current position in said virtual
space as reference in accordance with the rotation of

said rotation body detected by said rotation detection means.

10. The image processing apparatus according to Claim 9,
5 characterized in that:

said press detection means is capable of detecting the press at a plurality of points of said rotation body, and

said display control means is scales up/down and
10 displays said three-dimensional image corresponding to a position where said press detection means detects the press.

11. An image processing program executed by a computer
15 which controls an image processing apparatus having:

operation means rotatable around a rotation axis and having a rotation body which can be pressed in a direction substantially in parallel with the rotation axis,

20 rotation detection means for detecting rotation of said rotation body,

press detection means for detecting press of said rotation body, and

display control means for controlling display of an
25 image, said image processing program is characterized by including the steps of:

rotating and displaying the said image in accordance with rotation of said rotation body detected by said rotation detection means, and

30 switching and displaying the said image in accordance with a result of the detection by said press

detection means.

12. An image processing method performed by an image processing apparatus having:

5 operation means rotatable around a rotation axis and having a rotation body which can be pressed in a direction substantially in parallel with the rotation axis,

 rotation detection means for detecting rotation of
10 said rotation body,

 press detection means for detecting press of said rotation body, and display control means for controlling display of an image, said image processing method characterized by including the steps of:

15 rotating and displaying said image in accordance with the rotation of said rotation body detected by said rotation detection means, and

 switching and displaying said image in accordance with a result of the detection by said press detection
20 means.